

Appl. No. 10/789,159  
Amdt. dated July 19, 2007  
Reply to Office Action of April 25, 2007

PATENT

**Amendments to the Drawings:**

The attached sheets of drawings includes improved copies of Figs. 3, 5-7, 11-15 17 and 18. These sheets, replace the original sheets 3, 5-7, 11-15 17 and 18.

Attachment: Replacement Sheets

**REMARKS/ARGUMENTS**

After entry of this amendment, claims 1-9 and 11-14 are pending in the present application.

**Objections to the Abstract and Drawings**

The abstract was objected to for comprising more than a single paragraph. The abstract has been amended in accordance with MPEP § 608.01. Figures 3, 5-7, 11-15 17 and 18 were objected to because the copies were dark and unintelligible. The attached replacement sheets provide clear copies of each of the Figures that were objected to.

**Rejections under 35 U.S.C. § 112, first paragraph**

In the Office Action claims 1-15 stand rejected for allegedly lacking enablement. The Examiner acknowledges that the claims are enabled for inducing differentiation of pluripotent cells exemplified in the specification (embryonic stem cells and mesenchymal stem cells), but asserts that other types of pluripotent cells is not enabled. Without necessarily agreeing with the Examiner's position, applicants have amended the claims to recite explicitly that the pluripotent cells used in the methods of the invention are either embryonic stem cells or mesenchymal stem cells. In addition, the claims recite that the cells differentiate into hepatocytes. Support for the claim amendments can be found throughout the specification. For example, Example 3 on page 23 and Example 10 on page 33 describe methods of differentiating embryonic stem cells and mesenchymal stem cells, respectively. The specification provides evidence (*see e.g.*, Examples 6 and 11) that cells treated according to the claimed methods express markers specific to hepatocytes. Support for new claim 22 is found, for example, in claim 12, as filed. Claims 10 and 15 are cancelled without prejudice in view of the amendments specifying embryonic stem cells or mesenchymal stem cells. Applicants reserve the right to pursue the subject matter of the cancelled claims in one or more subsequent applications.

In view of the claim amendments, applicants respectfully submit that the rejection is improper and should be withdrawn.

**Rejections under 35 U.S.C. § 112, second paragraph**

Claims 1, 4, and 6 stand rejected for reference to a medium "comprising any *one* of the following growth factors..." Applicants acknowledge with appreciation the

Examiner's helpful suggestion for alternative claim language in the Office Action. The claims have been amended as suggested by the Examiner. Support for the claim language is replete throughout the specification.

Claims 2, 3, 5 and 7 stand rejected for references the types of coated dishes "used" in the claimed methods. Again, applicants have amended the claims as suggested by the Examiner.

In light of the claim amendments, withdrawal of the rejections is respectfully requested.

**Rejections under 35 U.S.C. § 101**

Claims 1-10 stand rejected for allegedly lacking utility because the claims do not recite an endpoint of the claimed methods of differentiation. The claims now explicitly recite that the claimed methods result in the differentiation of the stem cells into hepatocytes. Withdrawal of the rejection is respectfully requested.

**Obviousness-type double patenting rejection**


Claims 1-3 and 11-15 stand rejected under the doctrine of obviousness-type double patenting over claim 1-3 of copending Application No. 11/210,337. Applicants will file a terminal disclaimer, in necessary, when the claims of the present application are otherwise in condition for allowance.

**CONCLUSION**

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If a telephone conference would expedite prosecution of this application, the Examiner is invited to telephone the undersigned at 415-576-0200.

Respectfully submitted,



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Attachments  
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